

WHAT IS CLAIMED:

1 1. A method for use in wireless equipment, the method comprising the steps of:  
2 receiving user channel transmit power information from base stations involved in a  
3 soft handoff with user equipment; and  
4 receiving information from the user equipment;  
5 wherein the wireless equipment determines a reference user transmit power level  
6 for use by the base stations as a function of the received user channel transmit power  
7 information and the received information from the user equipment.

1 2. The method of claim 1 wherein the received information from the user  
2 equipment comprises at least one parameter that is a function of a measured signal-to-  
3 noise ratio in the user equipment.

1 3. The method of claim 1 wherein the received information from the user  
2 equipment comprises a value representative of an excess signal-to-noise ratio determined  
3 as a function of a target signal-to-noise ratio value and a signal-to-noise ratio associated  
4 with a received user channel transmit power signal that is stronger than at least some of  
5 the base stations.

1 4. A method for use in wireless equipment, the method comprising the steps of:  
2 receiving user channel transmit power information from base stations involved in a  
3 soft handoff with user equipment; and  
4 receiving information from the user equipment, wherein the information comprises  
5 an identifier of that base station with a received signal at the user equipment stronger than  
6 other base stations and a signal-to-noise ratio value associated with the identified base  
7 station;  
8 determining a downlink reference power from the received user channel transmit  
9 power information and the received information from the user equipment; and  
10 transmitting the determined downlink reference power to the base stations.

1 5. A method of claim 4 wherein the signal-to-noise ratio value represents an excess

2 signal to noise ratio value determined as a function of a target signal-to-noise ratio value  
3 and a signal-to-noise ratio value associated with the identified base station.

1 6. A method for use in wireless equipment during a soft handoff with a number of  
2 base stations, the method comprising the steps of:

3 identifying that base station with a received signal at the wireless equipment  
4 stronger than other base stations; and

5 calculating a signal-to-noise ratio value associated with the identified base station;

6 and

7 transmitting the identify of the identified base station and the calculated signal-to-  
8 noise ratio to a control point of a wireless system.

1 7. The method of claim 6 wherein the control point is a common control point.

1 8. The method of claim 6 wherein the calculated signal-to-noise ratio value  
2 represents an excess signal to noise ratio value determined as a function of a target signal-  
3 to-noise ratio value and a signal-to-noise ratio value associated with the received signal  
4 from the identified base station.

1 9. Apparatus for use in wireless equipment, the apparatus comprising:

2 a receiver for receiving user channel transmit power information from base stations  
3 involved in a soft handoff with user equipment, and receiving information from the user  
4 equipment; and

5 a processor for determining a reference user transmit power level for use by the  
6 base stations as a function of the received user channel transmit power information and the  
7 received information from the user equipment.

1 10. The apparatus of claim 9 wherein the received information from the user  
2 equipment comprises at least one parameter that is a function of a measured signal-to-  
3 noise ratio in the user equipment.

1 11. The apparatus of claim 9 wherein the received information from the user  
2 equipment comprises a value representative of an excess signal-to-noise ratio determined

3 as a function of a target signal-to-noise ratio value and a signal-to-noise ratio associated  
4 with a received user channel transmit power signal that is stronger than at least some of  
5 the base stations.

1 12. Apparatus for use in wireless equipment, the apparatus comprising:

2 a transceiver for (a) receiving user channel transmit power information from base  
3 stations involved in a soft handoff with user equipment, (b) receiving information from the  
4 user equipment, wherein the information comprises an identifier of that base station with a  
5 received signal at the user equipment stronger than other base stations and a signal-to-  
6 noise ratio value associated with the identified base station, (c) transmitting a downlink  
7 reference power to the base stations; and

8 a processor for use in determining the downlink reference power from the received  
9 user channel transmit power information and the received information from the user  
10 equipment.

1 13. The apparatus of claim 12 wherein the signal-to-noise ratio value represents an  
2 excess signal to noise ratio value determined as a function of a target signal-to-noise ratio  
3 value and a signal-to-noise ratio value associated with the identified base station.

1 14. Apparatus for use in wireless equipment during a soft handoff with a number  
2 of base stations, the apparatus comprising:

3 a processor for use in (a) identifying that base station with a received signal at the  
4 wireless equipment stronger than other base stations, and (b) calculating a signal-to-noise  
5 ratio value associated with the identified base station; and

6 a transmitter for transmitting the identify of the identified base station and the  
7 calculated signal-to-noise ratio to a control point of a wireless system.

1 15. The apparatus of claim 14 wherein the control point is a common control  
2 point.

1 16. The apparatus of claim 14 wherein the calculated signal-to-noise ratio value  
2 represents an excess signal to noise ratio value determined as a function of a target signal-

3 to-noise ratio value and a signal-to-noise ratio value associated with the received signal  
4 from the identified base station.

1 17. A transmission frame representing data embodied in a wireless transmission  
2 signal, the transmission frame comprising:

3 a first portion of a field comprising at least one bit for conveying data  
4 representative of an identifier for identifying a base station whose received signal at a user  
5 equipment is stronger than other received signals from other base stations at the user  
6 equipment; and

7 a second portion of the field comprising at least one bit for conveying data  
8 representative of a value associated with a signal-to-noise measure of the received signal  
9 from the identified base station at the user equipment.

1 18. The transmission frame of claim 17 wherein the transmission frame is conveyed  
2 via a radio resource control based protocol.

1 19. The transmission frame of claim 17 wherein the transmission frame is conveyed  
2 via physical layer signaling.